DRAFT

Environmental Impact Statement

Bison Conservation and Management in Montana

June 2015



List of Tables and Figures	3
Executive Summary	
Acknowledgements	
Chapter 1: Project Overview and Summary	7
1.1 Introduction	
1.2 Purpose and Need for the Proposed Action	
•	
1.3 Benefits of the Proposed Action	
1.4 Decisions to be Made	
1.5 Other Agencies that have Jurisdiction or Responsibility	
1.6 Public Involvement Process	
1.7 Issues Identified through Public Involvement and Evaluated in this Draft EIS	13
Chapter 2: Background Information	18
2.1 Introduction to Plains Bison	18
2.1.1 Taxonomy and Systematics	
2.1.2 Species Description	
2.1.3 Historical Distribution	
2.1.4 Historical Abundance	
2.2 Species Status, Distribution, and Abundance	
2.3 Life History and Ecology	
2.3.1 Description of Relevant Bison Behavior and Habitat	
2.3.2 Foraging Ecology and Diet Composition	
2.3.3 Reproductive Biology	
2.3.4 Demography and Population Dynamics	
2.3.5 Genetics	
2.4 Bison Management	
2.4 Dison/Agriculture Interactions	
2.4.1 Bison/Agriculture interactions	
2.4.3 Hunting	
2.4.4 Native American Hunting Rights	
2.4.5 Public Safety	
2.4.6 Bison-Vehicle Collisions	
2.5 Legal Classifications of Bison	49
2.6 Tribal and Privately Owned Bison in Montana	51
2.6.1 Tribal Involvement in Bison	
2.6.2 Private Herds	52
2.7 Social Value of Bison	53
2.7.1 Social Value/Perception of Bison Restoration in Montana	
2.7.2 Tribal Cultural Values of Bison	
2.7.3 Recreation Values	
2.8 Costs of Bison Management	58
Chapter 3: Alternatives	60
3.1 Introduction	
3.2 Alternative # 1: No Action	60
3.3 Alternatives #2-#4: General Guidelines	60
3.3.1 Bison Restoration Project Guidelines	
3.3.2 Test Project Option for Implementation of Alternative #2, #3, or #4	74

3.4 Alternative #2: Restoration of a Publicly Managed Bison Herd on the Private and/or Pu	blic
Lands of Willing Landowner(s)	
3.4.1 Case Study #1 for Restoration on the Private and/or Public Lands of Willing Landowner(s): Utah	's
Henry Mountains Herd	
3.4.2 Case Study #2 for Restoration to the Private and/or Public Lands of Willing Landowner(s): Monta	ana's
American Prairie Reserve Herd	
3.5 Alternative #3: Restoration of a Publicly Managed Bison Herd on Tribal Lands	88
3.5.1 Case Study #1 for Restoration to Tribal Lands: Tribal Herd in the Book Cliffs Wildlife Management	ent Unit,
Utah	
3.6 Alternative #4: Restoration of a Publicly Managed Bison Herd on a Large Landscape Wl	here
there are Minimal Conflicts with Livestock (Large Herd Alternative)	94
3.6.1 Case Study #1 for Restoration to a Large Landscape Where there are Minimal Conflicts with Live	estock:
Canada's Pink Mountain Herd	
3.6.2 Case Study #2 for Restoration to a Large Landscape Where there are Minimal Conflicts with Live	
Alaska's Wood Bison Herd	
3.7 Alternatives Identified during Scoping but Not Considered in this EIS	105
Chapter 4: Environmental Consequences	107
4.1 Methods used to Estimate Potential Environmental Consequences	
4.2 Physical Resources	
4.2.1 Ecosystem Contribution	107
4.2.2 Wildlife and Fisheries	
4.2.3 Vegetation and Habitat Management	
4.2.4 Water Resources	
4.2.5 Air and Soil	
4.4 Human Environment	
4.4.1 Public Safety	
4.4.2 Property Damage	
4.4.3 Livestock Resources	
4.4.4 Cultural and Historic Resources	
4.4.5 Recreation and Hunting	
4.4.6 Local Economy and Social Values	
4.5 Irreversible/Irretrievable Resource Commitments	149
Chapter 5: Miscellaneous	4 2 4
Lnapter 5: Miscellaneous	151
5.1 Preparers, Agencies, or Individuals Who Were Consulted or Contributed Towards the	
Preparation of the EIS and the Public Involvement Process	
5.2 List of Acronyms	
5.3 Literature Cited	
5.4 Appendices	
5.4.1 Appendix A	169

List of Tables and Figures

- Table 1. Montana bison harvest information including application numbers, success rate, and harvest numbers.
- Table 2. The cost of bison tags/permits by area for the 2014 season as well as the estimated annual revenue brought in by the sale of tags.
- Table 3. (adapted from Licht, 2014). Estimated bison herd capacity by site and percent resource allocation for Badlands National Park.
- Table 4. Summary of hunter expenditures per day in FWP's Region 3.
- Table 5. Preliminary cost estimates of a bison restoration program from the 2011 Interim Translocation of Bison Environmental Assessment.

- Figure 1. Inferred late prehistoric and early historic relative bison densities.
- Figure 2. Designated Surveillance Area for brucellosis monitoring around Yellowstone National Park.
- Figure 3. Native habitats critical to wildlife and wildlife movement across the state.
- Figure 4. Area of Utah where the Henry's Mountain bison herd is managed.
- Figure 5. Area of Montana where the American Prairie Reserve is located and where they manage their bison herd.
- Figure 6. Diagram of APR's current fence design used to contain their bison.
- Figure 7. Area of Utah where the Book Cliffs bison herd is managed.
- Figure 8. Area of Canada where the Pink Mountains bison herd is managed.
- Figure 9. Area of Alaska depicting the overall Nonessential Experimental Population area as well as the three proposed restoration areas.

Executive Summary

The purpose of this Environmental Impact Statement (EIS) is to determine if bison restoration is appropriate and if so, what potential opportunities are feasible and consistent within Montana's laws, policies, rules, and regulations. It is Montana Fish, Wildlife and Parks' (FWP) desire to fulfill its statutory obligations to manage all wild ungulates in the state, while recognizing that bison management presents additional challenges compared to other species.

Bison are designated as both a wildlife species in need of management and a species in need of disease control in Montana. The only bison currently considered wildlife in Montana are those bison that come from Yellowstone National Park. Management of these bison is coordinated by signatories to the Interagency Bison Management Plan.

FWP is required to manage wildlife, fish, game, and nongame animals in a manner that prevents the need for listing under the state list of endangered species (§ 87-5-10 MCA) or under the federal Endangered Species Act (16 U.S.C 1531, et seq.), and in a manner that assists in the maintenance or recovery of those species (§ 87-1-201 MCA). Within this context, FWP is using this EIS to evaluate potential opportunities for bison restoration.

The objectives of this EIS are to:

- Evaluate which method(s) for a pilot bison restoration effort may be appropriate, if any.
- Evaluate potential landownership scenarios where a restoration effort may be feasible.
- Evaluate potential costs and benefits of a restoration program.

The following alternatives are evaluated within this EIS:

- Alternative #1: No Action
- Alternative #2: Restoration of a Publicly Managed Bison Herd on the Private and/or Public Lands of Willing Landowner(s)
- Alternative #3: Restoration of a Publicly Managed Bison Herd on Tribal Lands
- Alternative #4: Restoration of a Publicly Managed Bison Herd on a Large Landscape Where there are Minimal Conflicts with Livestock

At least one "case study" has been included for each of alternatives #2-#4 to illustrate a real life scenario that fits the general criteria of the alternative. The case studies do not represent the only scenarios that fit within the criteria of the alternative but do represent scenarios to assist in evaluating feasibility of each alternative.

Within any of the alternatives to restore bison is an opportunity to carry out a five-year test project. Any test project or any restoration project would follow implementation guidelines described within this EIS to include: 1) project site guidelines; 2) bison source herd guidelines; 3) herd management guidelines; and 4) program implementation guidelines. In particular any test or restoration project would: 1) only use animals free of reportable

diseases and free of cattle gene introgression; 2) involve a pre-restoration range assessment; 3) have a well thought out containment and management plan; 4) have secure full funding for at least a five-year test period; and 5) have local community involvement.

Potential impacts to the human and physical environment are evaluated for the alternatives, however, the evaluation is based on broad restoration scenarios. In general, bison restoration somewhere in Montana could be beneficial to recovery of the species as a whole and contribute to the restoration of ecological processes within the restoration site. Bison restoration could provide new opportunities for hunters and recreationists but could complicate some land management. Agricultural interests could be negatively impacted by bison in areas near private land but the magnitude of those impacts is difficult to determine without a specific restoration site. FWP resources would be impacted in order to increase capacity to manage a greater number of bison as wildlife than currently present.

The final Record of Decision for this EIS will <u>not</u> identify a site within Montana where bison restoration will occur. Rather, the decision will identify potential opportunities and guidelines for restoration if it is determined to move forward with some effort. A site-specific Environmental Assessment will be needed in order to fully evaluate all factors and potential impacts of any effort to restore bison if a record of decision selects any of the restoration alternatives. Selection of the 'no action' alternative will not preclude efforts to restore bison at some later date.

Acknowledgements

Members of the 'Bison Discussion Group' formed in 2013 deserve special recognition for their assistance in the framing of this document. The following members participated in one or more of the three group meetings; Mark Albers, Keith Aune, Jay Bodner , Senator Taylor Brown, Ervin Carlson, Chelcie Cremer, Matt Derosier, Dick Dolan, Tom France, Andrea Jones, County Commissioner Chris King, Representative Mike Lang, Christian Mackay, Jeanne-Marie Souvigney, Dave McClure, Ron Moody, Vicki Olson, Senator Jim Peterson, Senator Mike Philips, Rick Potts, Tom Puchlerz, County Commissioner Lesley Robinson, Dean Rogge, FWP Commissioner Richard Stuker, and FWP Commissioner Wetsit. Discussions were facilitated by Virginia Tribe.

Individuals particularly helpful with the 'Case Study' write ups include: Keith Aune, Bill Bates, Ervin Carlson, Sean Gerrity, Mike Hammett, Jeremy Kidd, Kyran Kunkel, Daniel Lirette, Dax Mangus, Clint Sampson, Paul Santavy, Alicia Woods, and Rob Woods.

FWP staff that assisted in preparation of this document include: Rebecca Cooper, Arnold Dood, Tom Flowers, Director Jeff Hagener, Lauri Hanauska-Brown, Quentin Kujala, Ken McDonald, Adam Messer, Margaret Morelli, Mark Sullivan, Sam Sheppard, Tom Palmer, and Mike Volesky. Stephanie Adams, Arnold Dood, and Lauri Hanauska-Brown prepared the document, <u>Background Information on Issues of Concern for Montana: Plains Bison Ecology, Management, and Conservation</u> that was used to inform much of Chapter 2 within this EIS.

The public scoping process including the eight 2012 meetings held across the state benefitted greatly from the involvement of Tom Palmer, Stephanie Adams, Arnie Dood and FWP regional staff too numerous to list.